

## Abstract

5       The present invention has found that the Mts1  
protein is expressed in white matter astrocytes in the  
spinal cord. Such expression is significantly increased  
following sciatic nerve injury or dorsal root injury,  
10       particularly in astrocytes surrounding dorsal funiculus  
containing the central processes of the injured primary  
sensory neurons. The present invention has further  
demonstrated that Mts1 proteins administered  
15       extracellularly promote neurite outgrowth from neuronal  
cells. Based on these surprising findings, the present  
invention provides compositions and methods that are  
useful for the treatment of various neurological  
conditions characterized by death, degeneration or injury  
of neuronal cells.